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| 10/693,541      | 10/24/2003  | Donald R. Moody      | 018300-001521       | 2310             |

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| EXAMINER |
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LAUX, JESSICA L

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| ART UNIT | PAPER NUMBER |
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3635

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 01/24/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                               |                              |  |
|------------------------------|-------------------------------|------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/693,541 | Applicant(s)<br>MOODY ET AL. |  |
|                              | Examiner<br>Jessica Laux      | Art Unit<br>3635             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 23-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 33-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2006 and 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Acknowledgment is made of the amendment filed 12/06/2006.

Accordingly the specification, drawings and claims have been amended.

### ***Response to Arguments***

Applicant's arguments filed 12/06/2006 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the top and bottom chord are "directly joined") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claims 1, 7, 8, 12, 13 and have been amended to recite the limitation of the bottom chord members "fixed" to the top chord members. Examiner asserts that the prior art of Macomber still anticipates the amended claims as recited in the previous Office Action (and included herewith). The limitation of "fixed" merely requires the bottom chord members to be securely fastened or held in an unmoving position. The chords of Macomber are clearly securely fastened or held in an unmoving position, albeit via the vertically oriented struts.

Claims 18 and 33 have been amended to include the limitation means for "directly fastening". Examiner asserts that the prior art of Macomber still anticipates the

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amended claims as the means for directly fastening include the vertically oriented struts which directly fasten the two chord members together.

Further applicant argues the rejection of claims 7-10 and 12-15 of Macomber in view of Ruppel. Examiner notes that Ruppel was not used for its teach of the structure of the truss but rather the teaching of a plurality of trusses upon a wall structure. Macomber clearly anticipates the claim as it pertains to the structure of the truss (as already explained).

Further still applicant argues the obvious rejection of claims 4-9. Examiner notes that applicant's cited reference in the specification (page 10, lines 22-24) does provide a reason or advantage for using a lighter gauge, therefore the obvious rational as previously presented still applies. The use of a lighter gauge metal is considered a design choice, as both trusses would perform the same function of supporting a roof structure. Additionally applicant has disclosed, and claimed, that a thickness of less than 1.2 mm (18 gauge) or 12, 14 or 16 (significantly more than 1.2 mm since 14 gauge is about 1.72 mm are acceptable thicknesses. It appears from this disclosure that any range of thicknesses of the metal would be acceptable further rendering this feature a mere design consideration.

The amendment to the drawings and specification is acknowledged and the drawing objection of the previous Office Action is hereby withdrawn in view of the instant amendment.

In view of applicant's remarks and the amendment the claim objections of the previous Office Action are hereby withdrawn.

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An examination of the instant claims is presented below.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 17-21, and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Macomber (2457056).

In regards to claim 1: A metal truss, comprising:

a pair of elongated top chord members (12 & 13) each having a first end and a second end, the top chord members connected to each other at the first end;

a first elongated bottom chord member (10), the ends of the first bottom chord member fixed (via vertical strut 15) to the top chord members adjacent the second ends of the top chord members (Figure 1);

a second elongated bottom chord member (11), the ends of the second bottom chord member fixed (via load bearing plate, 19, which connects to the upper bottom chord member which is connected to the top chord member) to the top chord members adjacent the second ends of the top chord members such that the second bottom chord member is spaced from the first bottom chord member (Figure 1); and

at least one web member (14) positioned between and interconnecting at least one top chord member and the first bottom chord member, one end of the web member

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connected to the at least one top chord member and the other end of the web member connected to the first bottom chord member.

In regards to claim 2: A metal truss as recited in claim 1, wherein the ends of the second bottom chord member connect with the second ends of the top chord members at a point spaced from the second ends of the top chord members (Figure 3).

In regards to claim 3: A metal truss as recited in claim 1, wherein the connected top chord members form an apex of an angular shape (Figure 1), and with the second bottom chord member, form a triangle (Figure 1).

In regards to claim 5: A metal truss as recited in claim 1, further comprising at least one tensile element (19) connected between the first bottom chord member and the second bottom chord member, wherein the point of connection of the tensile element to the first bottom chord member is spaced from the point of connection of the at least one web member to the first bottom chord member (Figure 6).

In regards to claim 17: A metal truss, comprising:

a plurality of elongated top chord members (12 & 13), the top chord members connected to each other end to end so that the connected top chord members have two free ends;

a first elongated bottom chord member (10), the ends of the first bottom chord member fixed (via vertical strut 15) to the top chord members adjacent the free ends of the connected top chord members;

a second elongated bottom chord member (11), the ends of the second bottom chord member fixed (via load bearing plate, 19, which connects to the upper bottom

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chord member which is connected to the top chord member) to the top chord members adjacent the free ends of the connected top chord members such that the second bottom chord member is spaced from the first bottom chord member (Figure 3); and

at least one web member (14) positioned between and interconnecting at least one top chord member and the first bottom chord member, one end of the web member connected to the at least one top chord member and the other end of the web member connected to the first bottom chord member.

In regards to claim 18: A metal truss, comprising:

a pair of elongated top chord members (12 & 13) each having a first end and a second end, the top chord members connected to each other at the first end;

a first elongated bottom chord member (10);

means for directly fastening (15) the first bottom chord member to the top chord members adjacent the second ends of the top chord members;

a second elongated bottom chord member (11); means for connecting (17) the second bottom chord member to the first bottom chord member such that the second bottom chord member is spaced from the first bottom chord member; and

at least one web member (14) positioned between and interconnecting at least one top chord member and the first bottom chord member, one end of the web member connected to the at least one top chord member and the other end of the web member connected to the first bottom chord member.

In regards to claim 19: A metal truss as recited in claim 18, wherein the first bottom chord member fastening means(15) includes fasteners (Col. 2, lines 54-55,

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whereby the fasteners are effected by welding and applicant has disclosed in the specification on page 8, line 14 that welding is appropriate form of fastening) for connecting the ends of the first bottom chord member directly to the top chord members.

In regards to claim 20: A metal truss as recited in claim 18, wherein the first bottom chord member fastening means includes a heel truss member (15) vertically fastened between each end of the first bottom chord member and the top chord members.

In regards to claim 21: A metal truss as recited in claim 18, wherein the second bottom chord member connecting means includes at least one tensile element (19) connected between the first bottom chord member and the second bottom chord member, wherein the point of connection of the tensile element to the first bottom chord member is spaced from the point of connection of the at least one web member to the first bottom chord member (Figure 6).

In regards to claim 33: A metal truss, comprising:

a plurality of elongated top chord members (12 & 13), the top chord members connected to each other end to end so that the connected top chord members have two free ends;

a first elongated bottom chord member (10);

means for directly fastening the first bottom chord member to the top chord members adjacent the second ends of the top chord members (15),

a second elongated bottom chord member (11);



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means for connecting (17 or 19) the second bottom chord member to the first bottom chord member such that the second bottom chord member is spaced from the first bottom chord member, and at least one web member (14) positioned between and interconnecting at least one top chord member and the first bottom chord member, one end of the web member connected to the at least one top chord member and the other end of the web member connected to the first bottom chord member.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-10 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macomber (2457056) in view of Ruppel (2201504).

In regards to claim 7: Macomber teaches a metal truss comprising:

a pair of elongated top chord members (12 & 13) each having a first end and a second end, the top chord members connected to each other at the first end;

a first elongated bottom chord member (10), the ends of the first bottom chord member fixed (via element 15) to the top chord members adjacent the second ends of the top chord members;

a second elongated bottom chord member (11), the ends of the second bottom chord member fixed (via load bearing plate, 19, which connects to the upper bottom

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chord member which is connected to the top chord member) to the top chord members adjacent the second ends of the top chord members such that the second bottom chord member is spaced from the first bottom chord member (Figure 3); and

at least one web member (14) positioned between and interconnecting at least one top chord member and the first bottom chord member, one end of the web member connected to the at least one top chord member and the other end of the web member connected to the first bottom chord member.

Macomber does not teach a plurality of trusses and wall frames wherein the trusses are adapted to be erected upon a building system frame such that the second bottom chord member spans at least two wall frames and is connected to the top ends of the respective wall frames.

Ruppel teaches a plurality of wall frames (14), each of the wall frames having a top end; a plurality of metal trusses, each of the trusses wherein the plurality of trusses are erected upon the frame such that the second bottom chord member spans at least two of the wall frames and is connected to the top ends of the respective wall frames (Figure 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the truss as taught by Macomber have a plurality of the trusses be erected on wall frames as taught by Ruppel, as this is common in the art as a way to put a roof structure over a space enclosed by walls.

In regards to claim 8: A metal truss as recited in claim 7 above, wherein the ends of the second bottom chord member are fixed to the second ends of the top chord

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members (via 17) at a point spaced from the second ends of the top chord members (Macomber Figure 3).

In regards to claim 10: A building system as recited in claim 7, further comprising at least one tensile element (Macomber 19) connected between the first bottom chord member and the second bottom chord member, wherein the point of connection of the tensile element to the first bottom chord member is spaced from the point of connection of the at least one web member to the first bottom chord member (Macomber Figure 6).

In regards to claim 12: Macomber teaches a metal truss comprising:

a pair of elongated top chord members (12 & 13) each having a first end and a second end, the top chord members connected to each other at the first end,

a first elongated bottom chord member (10), the ends of the first bottom chord member fixed (via 15) to the top chord members adjacent the second ends of the top chord members,

a second elongated bottom chord member (11), the ends of the second bottom chord member fixed (via load bearing plate, 19, which connects to the upper bottom chord member which is connected to the top chord member) to the top chord members adjacent the second ends of the top chord members such that the second bottom chord member is spaced from the first bottom chord member (Figure 3), and

at least one web member (14) positioned between and interconnecting at least one top chord member and the first bottom chord member, one end of the web member connected to the at least one top chord member and the other end of the web member connected to the first bottom chord member.

Macomber does not teach a plurality of wall frames wherein the trusses are erected upon the wall frames and roofing material fastened to the top chord members.

Ruppel teaches a plurality of wall frames (14), each of the wall frames having a top end; a plurality of metal trusses, each of the trusses wherein the plurality of trusses are erected upon the frame such that the second bottom chord member spans at least two of the wall frames and is connected to the top ends of the respective wall frames (Figure 3); and roof material fastened to the top chord members (Figure 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the truss as taught by Macomber to be erected on wall frames and to have roofing material fastened to the top chord members, as taught by Ruppel, as this would provide an enclosed roof system over a room to protect the interior of the walls from damage due to rain.

In regards to claim 13: A metal truss as recited in claim 12, wherein the ends of the second bottom chord member are fixed to (via 17) the second ends of the top chord members at a point spaced from the second ends of the top chord members (Macomber Figure 3).

In regards to claim 14: Macomber discloses a truss made of metal as in the claim 12 above. Macomber does not address the thickness of the metal comprising the truss, however it appears that the truss of Macomber, or applicant's invention, would perform equally well with any thickness. Accordingly, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have modified Macomber such that the thickness of the metal comprising the top and bottom

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chord members and the at least one web member to be less than about 1.2 mm, as they would both perform the same function of supporting a roof structure equally well. Therefore such a modification would have been considered a mere design consideration which fails to patentably distinguish over Macomber.

In regards to claim 15: A building as recited in claim 12, further comprising at least one tensile element (Macomber 14) connected between the first bottom chord member and the second bottom chord member, wherein the point of connection of the tensile element to the first bottom chord member is spaced from the point of connection of the at least one web member to the first bottom chord member (Macomber Figure 6).

Claims 4 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macomber (2457056).

Claims 9 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macomber (2457056) in view of Ruppel (2201504) (where Macomber is relied upon for these claims).

In regards to claims 4, and 9: Macomber discloses a truss made of metal as in the claims 1 and 7 above. Macomber does not address the thickness of the metal comprising the truss, however it appears that the truss of Macomber, or applicant's invention, would perform equally well with any thickness. Accordingly, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have modified Macomber such that the thickness of the metal comprising the top and bottom chord members and the at least one web member to be less than about 1.2 mm, as they would both perform the same function of supporting a roof structure

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equally well. Therefore such a modification would have been considered a mere design consideration which fails to patentably distinguish over Macomber.

In regards to claim 34-35: Macomber discloses a truss made of metal as in the claims 1 and 7 above. Macomber does not address the thickness of the metal comprising the truss, however it appears that the truss of Macomber, or applicant's invention, would perform equally well with any thickness. Accordingly, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have modified Macomber such that the thickness of the metal comprising the top and bottom chord members and the at least one web member to be made of 12 to 16 gauge metal, as they would both perform the same function of supporting a roof structure equally well. Therefore such a modification would have been considered a mere design consideration which fails to patentably distinguish over Macomber.

Claims 6, 11, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macomber (2201504) in view of Bertrand (4279112).

In regards to claims 6, 11, and 22: Macomber discloses a metal truss as in the claims above. Macomber does not disclose insulating material disposed between the first bottom chord member and the second bottom chord member at the point of connection of the at least one web member to the first bottom chord member. Bertrand discloses a method for improving thermic insulation of a building with a metal frame structure that includes using insulation to cover every metal framing member (Col. 4, lines 27-33 so that no exposed metal is present to act as a direct heat conductor (Col. 4, lines 48-52). Therefore, it would have been obvious at the time the invention was made

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to modify Macomber to have insulation at the chord members because the insulation would prevent loss of heat because of the metal to metal contact at the connection of the chord members of the metal frame.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Macomber (2457056) in view of Ruppel (2201504) as applied to claim 12 above, and further in view of Bertrand (4279112).

In regards to claim 16: Macomber in view of Ruppel discloses a metal truss as in claim 12 above. Macomber in view of Ruppel does not disclose insulating material disposed between the first bottom chord member and the second bottom chord member at the point of connection of the at least one web member to the first bottom chord member. Bertrand discloses a method for improving thermic insulation of a building with a metal frame structure that includes using insulation to cover every metal framing member (Col. 4, lines 27-33 so that no exposed metal is present to act as a direct heat conductor (Col. 4, lines 48-52). Therefore, it would have been obvious at the time the invention was made to modify Macomber to have insulation at the chord members because the insulation would prevent loss of heat because of the metal to metal contact at the connection of the chord members of the metal frame.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica Laux whose telephone number is 571-272-8228. The examiner can normally be reached on Monday thru Friday, 8:30am to 4:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Naoko Slack can be reached on 571-272-6848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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01/17/2007



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